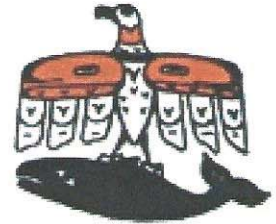


VIA ELECTRONIC FILING

March 7, 2014



Makah Indian Tribe

PO Box 115

Neah Bay, WA 98537

Federal Communications Commission

445 12th Street, SW
Washington, DC 20024

Attn: Chairman Thomas Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O'Rielly
ONAP Chief Geoffrey Blackwell
OSP Chief Jonathan Chambers
WCB Chief Julie Veach
WTB Acting Chief Roger Sherman

Connect America Fund, Rural Broadband Experiments
WC Docket No. 10-90

Subject: Expression of Interest by the Makah Tribal Council in Establishing Sovereignty in Communications with Future-Proof Infrastructure

Dear Chairman Wheeler, Commissioners, Bureau and Office Chiefs,

The Makah Indian Tribe is located in Neah Bay, Washington, where our reservation area literally represents the most northwest corner of the continental United States. The Makah Tribal Council ("MTC") hereby submits this letter as our expression of interest regarding playing a valuable role as a participant in the Rural Broadband Experiments described in the Commission's January 31, 2014 Order, Reports and Orders, and Further Notices of Proposed Rulemaking in ON Docket No. 13-5, *et al.*

We firmly believe that our project can play a pivotal role in informing prudent policy and investment of the finite \$4.5 Billion Connect America Fund. Our position is representative of the challenges and goals you seek to address, with the belief that our result will be both successful and replicable.

Within this letter we intend to offer you the information we have as to help inform the decisions ahead, most specifically the commendable approach to step outside the regulatory and lobbying box by seeking near firsthand knowledge of the truth behind the technologies and business cases for which you are chartered to regulate for the betterment of all consumers and Americans, irrespective of location or creed. This is a noble quest and uphill motion, moving from what has been to what is clearly inevitable.

The broadband stimulus although a great boost in the arm was an indication that much is yet to be learned and hashed out, where the word "experiment" coming from one of the U.S. Government's largest bodies of lawyers is truly appropriate and telling of the "transition" around us and still ahead. We hope to provide information and context to describe our value, approach, and understanding for what the project holds and what may become of it, while humbly admitting there are things we don't know and ourselves hope to discover through this process. If it were easy everyone would be doing it.

Tribal Sovereignty remains an American doctrine; Tribes have the power to establish our own form of government, constitutionally sovereign, with origins historical, cultural and legal. Through treaties and executive orders, Tribes have a legal underpinning to preserve our native culture, traditions and languages, with the capability to levy taxes, administer justice, regulate activity, charter businesses, protect sovereignty and provide vital services to constituents. It is well established that Tribes, like many sovereign governments, provide a full suite of services to their membership and community, spanning public safety, healthcare, education and more.

We intend to fulfill this mission through the deployment of future-proof infrastructure to maximize the impact of capital and subsidy investments. Service plans will be offered at prices and speeds no less than what is offered in nearby urban markets such as Seattle, Vancouver (BC) and Portland. The Tribe will become "Sovereign in Communications"TM and provide these services to our membership and community just as we do with health services, public safety, family support and solid waste. Ultimately we look forward to working with the deployed broadband infrastructure as an enabler and catalyst for cultural preservation, economic development and improved quality of life and access to opportunities.

Communications services in Indian Country are very poor, with even plain old telephone not reaching all households; you're lucky to have cellular and even luckier to have broadband Internet (or what used to be considered broadband). In the Order you clearly identify that the issues rural areas face "are frequently exacerbated on Tribal lands", "the resulting digital divide that persists between Tribal Nations and the rest of the country is well

documented” and “the percentage of Americans residing on Tribal lands without access to fixed broadband at a speed of 4/1Mbps is approximately five times the national average, while the percentage of unserved Americans living on Tribal lands without fixed broadband access at those speeds in *rural* areas is more than eight times the national average”.

To wit, the Makah Indian Reservation is bordered on the west by the Pacific Ocean, the Strait of Juan de Fuca to the north and the Olympic Mountain range along our south and east borders. Our only road in and out is akin to a 20MPH roller coaster and washes out annually due to mudslides, often taking with it the power it in what the Clallam County PUD states (without hesitation) as “at least one catastrophic outage per year”, forcing them to replace washed out and broken transmission poles with high strength composite and/or steel poles.

Much like the frontier areas of Alaska, our POTS phone service from the incumbent is brought in through over 50 miles of microwave backhaul links from Forks, WA. The microwave links are saturated both in TDM and IP capacity by our ~500 households and anchor institutions like the public school (predominantly Native children), tribal health clinic and tribal government, all of which operate from 600-900Kbps (typical) DSL connections prone to sustained outages. It is literally faster for us to drive 1.5 hours to the nearest “broadband” than to use it in the village (it’s true).

Three years ago we were lucky to have finally received a single cellular tower on the reservation that covers most of the village... except our government campus, health clinic and our new housing development (nearly 100 homes). Because the cellular system uses the incumbent’s backhaul, the 3G speeds are also commonly under 1Mbps as proven on the Washington State Broadband Office’s “map, which contains pins of landline and mobile users who have conducted speed tests from the WSBO website.

Our demographic composite is fairly typical of the unfortunate socio-economic factors in Indian Country, while ourselves lacking substantial revenues from location-centric sources like casinos and convenience stores. Our entire reservation is one whole census tract and a great majority of our population is fairly dense within the village, again representative of much of Indian Country including Alaska Native villages.

GEOID10	53009940000
CountyName	Clallam
EligibleHC	537
ExtremelyH	40
Annual_Sup	\$166,713.57

And like many Tribes our “anchor institutions” are limited to a simple list of the tribal government itself, however our governments are complex and inclusive, often made up of more than a 15 key departments that often times would be listed individually as anchors who require broadband service.

So as not to shortchange the impact or depth of broadband penetration to anchors in Indian Country, we have listed them out, while guaranteeing an anchor take rate of 100% to assist with sustainability as a business beyond a simple experimental project.

- Economic Development
- Natural Resources
- Planning
- Health / Wellness
- Family Services
- Community Services
- Emergency Management
- Public Safety
- Courts / Justice
- Water / Wastewater
- Roads / Transportation
- Culture / Historic Preservation
- Information Technology
- Education / Higher Education
- Vocational Rehab / Employment Office
- Education (Washington Public K-12, Cape Flattery School District)
- U.S. Coast Guard

Furthermore, the impact of broadband within each “vertical” (aka department) will be fully measurable and manageable during and beyond the project, allowing the FCC to follow beyond the simple task of supplying infrastructure and into the “now what” of broadband uses. This is another key area both under the IP Transition and other Orders where the FCC hopes to gain insight and/or conduct “experiments” (healthcare, education, public safety, etc).

As identified previously, there is effectively no competition in our area, only the incumbent and one cellular carrier. No 3rd parties have agreed to enter our market, not even local wireless ISPs, and between the lack of bandwidth and remote nature of the Tribe it would be ineffective for any outside party to provide services; this is why Tribes often (but not always or completely) operate their own anchor services like health, public safety, education and economic development. Operating our own services has its challenges, but is extremely community oriented and therefore very successful.

Which is also testament to our ability and willingness to meet the inherent obligations and requirements of providing Information and Communications Technologies – broadband, voice and even entertainment. We are ready and willing to make capital investments, build both technology capacity (infrastructure) and human capacity (training and jobs) and provide a higher level of service than our market has or would otherwise receive through the incumbent. Providing services from a Tribal perspective would actually reduce consumer disruption, whether constant outages, billing errors, service quality and plain old consumer frustration. Currently, if a resident cannot pay their bill for any reason or simply forgets, say due to a family emergency, their service gets cut off, but not simply turned off, it gets re-allocated to the next person who is on the waiting list because the copper and bandwidth are at capacity. So if that person ran a business or attended college online or had school-age children, they would no longer be able to maintain critical parts of their lives by being sent to the back of the line.

And although we have a wireless carrier on the reservation, just as identified in the Order, wireless services are far more expensive and not comparable to urban (and we urge to say landline at large) services and/or cost. Especially for the demographic of Indian Country, affordability is a key concern, between low incomes, poverty and often poor credit, prepaid cellular is the only option and much more expensive both in upfront and ongoing service fees, only further exacerbating the issue. We are big believers in wireless for how it keeps us connected, available and most importantly safe, however it pales in comparison to the cost-benefit of a fiber to the home service, especially where the capital infrastructure has been subsidized. Let's be honest, the cost of telecom and broadband services are mere fractions of what they once were and continue to shrink.

We are currently in the process of conducting an in-depth ETC feasibility study to determine the exact costs, service models and subsidy impacts on both the capital and operational models. The study will allow us to be 100% prepared for applying for ETC status with the FCC as well as any funding to cover unsubsidized costs through either self-capitalization or other funding sources. The studies will include all required elements for both FCC ETC as well as USDA RUS; ranging from service area to service plans, network design to capital improvement, subsidy impacted proforma (competitive and incumbent) to the all-important acknowledgement of last resort, in the realistic event the incumbent no longer desires our market area.

We propose a Fiber-to-the-Home project that will be realistic in cost and timelines to support the experimental program, but will also provide value to taxpayers by fully addressing the need rather than placing another band-aid or incremental step. We also have devised some blends of technology that

we believe will reduce the barriers of mobile carriers to enter our market, enhance public safety communications, provide quality high capacity service to anchor institutions, allow triple-play services and leave a path to 10Gig at some point in the fiber's lifespan with only electro-optical upgrades. The Tribe has already taken other steps in the last few years to reduce the complexity and cost of deploying such a network by installing 4" dry conduit in open trenches as well as in new housing developments, stubbed out on the home side. We also developed a resolution on dig once and conduit.

We have rights of way and pole attachment agreements for existing legacy multimode fiber that connects several disparate government buildings together; the Tribe and Clallam County PUD are engaging in discussions to extend that agreement for FTTH and possible SmartGrid deployments. The parties have a symbiotic fit due to Section 54.16-330 of the Revised Code of Washington State, which disallows Public Utility Districts from providing end-user telecommunications services; however through this relationship, recovery of fiber deployment and operational costs may be more bearable and edge closer to making a positive business case with less subsidies. The combination of these factors enable the Tribe to take the "path of least resistance" in leveraging existing assets, investments and relationships to quickly and efficiently deploy a robust and near infinitely scalable network, under a greatly reduced timeframe, likely measured in months, not years. This means rapidly delivering services to end-users, minimizing customer disruption and bringing in multiple revenues streams quickly.

These factors have a positive impact on the Connect America Funding model by reducing the subsidy required through leveraging partnerships and mutual interests of stakeholders upfront, meeting economies of scale on several levels, therefore increasing the deployment of future-proof networks across the country while increasing taxpayer (and ratepayer) value.

The relationships involved in this network extend beyond the PUD and our Tribe, where other local tribes and entities have shown interest in leveraging the network or contributing. For example, the bandwidth source comes from a neighboring Tribe who resells bandwidth and voice services, another Tribe owns an old AT&T long distance tower where the original bunker-like hut contains the fiber termination and rack space we can deploy offsite backup for disaster recovery / business continuity, which we currently have none. Further down Highway 101 are two other tribes that may be able to benefit from portions of this network, again driving down cost and increasing value in what would otherwise be a "cost prohibitive" exercise for each involved. And yet another Tribe in our state now offers a fiber training program we will be leveraging to help build our internal staff capabilities and offer new job opportunities, training and career paths for our youth.

If the proforma(s) suggest an opportunity exists to provide a +100Mbps offerings to home and business at market comparable entry-level (<20Mbps) services, we will do so. For anchor institutions we will provide dedicated symmetrical services at a guaranteed 100Mbps with Gigabit burst for prices near or equal to their current spend, likely at or below \$10/Mbps (which also informs policy and increases value on other subsidy programs like E-Rate). There is absolutely no logical or business reason to continue incrementing broadband access up slowly and even less reason to spend taxpayer dollars on low-capacity upgrades when a single subsidy can easily last 20+ years (life of the fiber) and is upgradable almost effortlessly and with minimum cost in the future. Furthermore, we believe in deploying infrastructure that is agile enough to traverse long distance and span decades of advancement.

Additional infrastructure will be deployed to augment the fiber network and harness the most powerful combination of all – photons to electrons, fiber to wireless. We will deploy a WiMAX infrastructure to provide coverage and redundancy to critical facilities in the event of major outages or catastrophe. Infrastructure will be “public safety grade” and being rural or remote shouldn't mean having to choose one or the other. It will also allow public safety and mobile workforces secure access to our LAN as well as Internet both on land and at sea, while also providing quality broadband service at up to 40Mbps (up/down combined) with support for voice service flows. We intend to seek licensed spectrum by any reasonable means, BRS followed by EBS, however our proximity to International borders (within 8km) 3.65GHz is not an option for us so acquiring suitable spectrum will be necessary.

Information and Communications Technologies (“ICT”) is the great equalizer of the 21st Century communications model, where service cost was historically driven by distance. This model is nearly irrelevant today, successfully proven by a myriad of carriers offering unlimited domestic calling plans, North American plans and incremental cost plans for calling developed countries. And we are well aware of the cost to provide voice services and have them built into the proforma, along with the rest of the costs ranging from DIDs to seat licenses to E-911, provided all for the pricing of an app on top of excellent broadband plans. There should be no reason someone doesn't have a “landline” phone if the cost isn't prohibitive; they are great for safety, emergencies, those with kids or elders at home, and of course helps fill lack of cell signal. Unfortunately, due to the high cost of landline and cellular service, we find that those in our community who need communications the most, especially our Elders, drop their phone service in order to pay for other vital services like food and heat. This is one of the key areas of relief we believe the IP Transition will provide. Not only should voice services be affordable, they should be feature-rich including everything from call forwarding to touchscreen home phones to mobile apps.

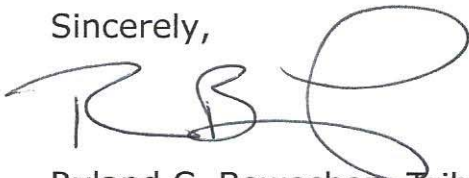
In closing, the Makah Indian Reservation, located in Washington State, encompasses 23,000 acres of the absolute most northwest corner of the continental USA. The only populated place is our village, Neah Bay, which is about 2 square miles with a population of 1,715 and 570 housing units.

Makah represents an excellent "experimental" project that the FCC can glean significant insight into relationships, costs, technology and adoption within the borders of a reservation that is uniquely representative of many remotely located yet densely populated villages in Indian Country, while including many attributes of terrain we share with our Native friends in Alaska and the Southwest US. We are a small slice of Indian Country where the challenges remain the same but the scope is manageable enough to "experiment" and refine the methodologies into a truly replicable template. Our terrain, population and demographics equate to doing a pilot project on ¼ of most any Tribal land or an Alaska Native Village without leaving ¾ of a reservation unserved or where access is exclusively air transportation. A pilot project at Makah provides greater assurance of a successful experiment and useful data, leading to prudent policy and efficient investment of the finite yet critical Connect America Fund (and other broadband subsidies).

Our Executive Tech Team has been working the broadband issue for many years and has lead to momentum with rights of way, existing conduit, pole access and even ownership of a decommissioned dopplar tower. Our project includes working with the local PUD and other area Tribes who have resources like fiber access, voice services, towers and training. The incumbent is exhausted and so are our Tribal Members and residents, with the incumbent's legacy microwave at capacity serving the last copper lines, limited DSL and one single cellular tower.

The Makah Tribal Council, enterprises and constituents are all aligned and marching to the beat of our Native drums; with an ETC Feasibility study in progress and stakeholder discussions continuing regularly, we are ready for this; visit us and see. We will assure you that even if this felt like an experiment at times, it would still far surpass the service experience we receive today. And finally, we agree on an order of magnitude with the annual (or 10-year) support number as reasonable pending final verification through our ETC study, which we intend to have complete by May.

Sincerely,

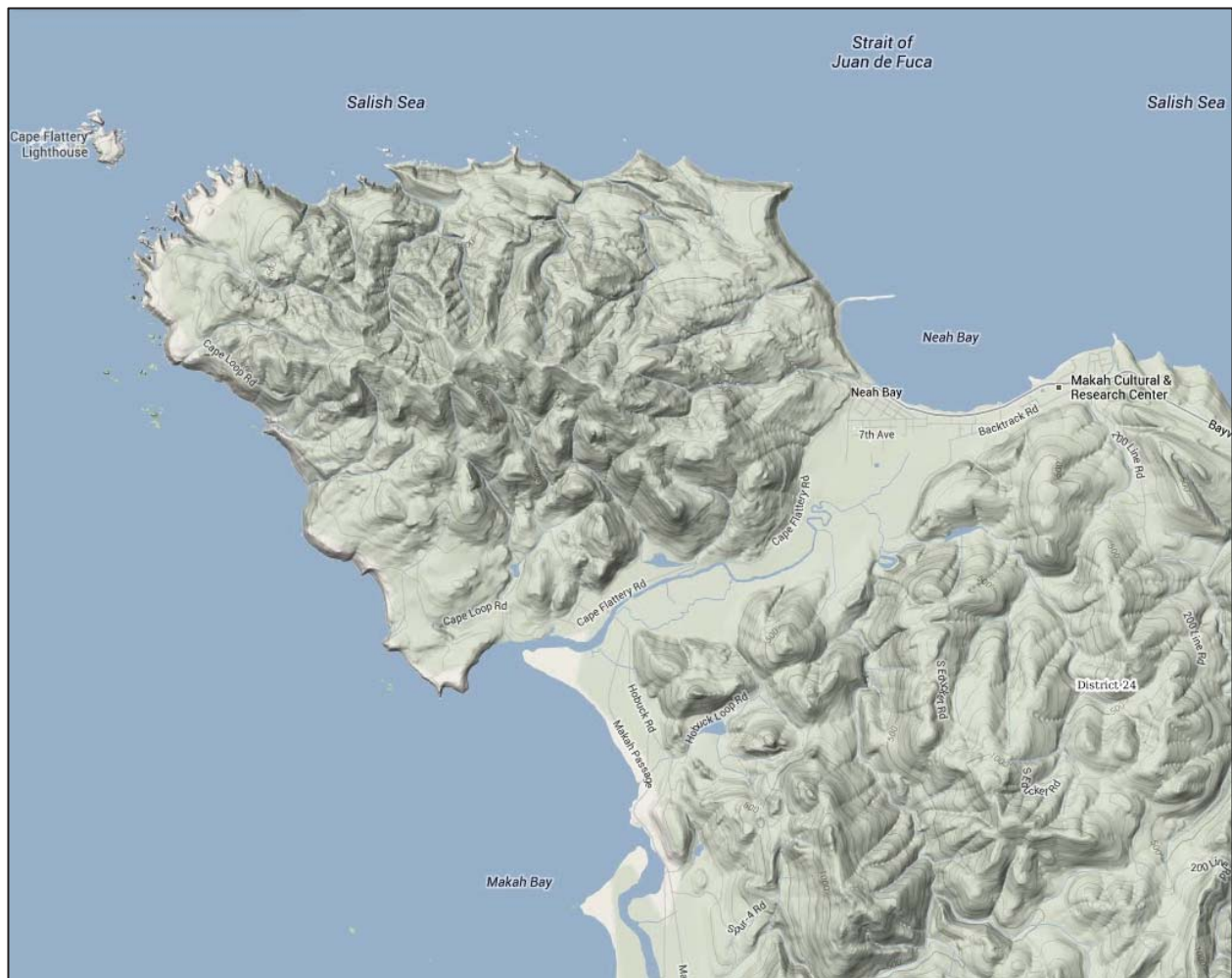
A handwritten signature in black ink, appearing to read 'R. Bowechop', with a large, stylized loop at the end.

Ryland C. Bowechop, Tribal Council
Makah Indian Tribe



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 Welcome while you are in Neah Bay, the beginning of the world and the home of the Makah -- the Cape People.





Caution
Slides and Washouts
Next 39 Miles
One-Way Traffic
Possible

